THE PLOUGH BOY.

BY S. SOUTHWICK.

"He that observeth the wind shall not sow, and he that regardeth the clouds shall not reap."—*Ecclesiastes.*

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GARDENING.

THE GARDEN;

Or, the ART OF LAYING OUT GROUNDS.—*Translated from the French of the Abbe De Lille.*

The groves of Eden, vanish'd now so long,
Live in description, and grow green in song.
Windsor Forest.

BOOK II.

Had I, O had I but the lute, whose sound
Enraptur'd Hæmus heard, till all around
Came rocks, came willing woods; it might again
Call up a sudden shade on ev'ry plain,
Spread here the oak, bid there the elm arise
And od'rous cedar, or delight the eyes
With the fair fruits that gild the orange grove:
But lost the harmony thus wont to move,
Lost is the lute of old, and lost the pow'r
To lead the list'ning trees, and round each bow'r
Upraise th' obedient rocks; in this dull age,
Rude Nature hears nor heeds the tuneful rage;
Art, sole enchanter, rules the laggard land,
While labour toils beneath his waving wand.

Know then, of happy art observant, know,
How graceful, or how grand the tree may grow:
For ever richly rob'd, with fruits and flow'rs,
In beauty and in strength alike it tow'rs:
How versatile, to please the changeful eye,
It springs from earth, and rears its head on high,
Or spreads around its rude and rugged arms,
In majesty, or elegance of charms!
Now to the breeze it bends, and now it braves
The blast that round its knotted armour raves,
And varying still adorns the various view,
With each diversity of form and hue.

With such effects the stores of art abound,
Which taste forbids to lavish or confound.
What diff'rent aspects to the view present,
Each rich plantation's beauty and extent!
The forest there immense, a black profound
Of savage gloom frowns more than midnight round:
Here choicer trees array the laughing glade,
And weave around a gently-glimm'ring shade:
There scatter'd clumps arise at distance due,
Adorn the vale, and fix the raptur'd view:
A single tree, whose branches here expand,
While lonely beauty decks the subject land.
Thus if our minds the peaceful plains may change,
Amid the thunders of the war to range;
Here deep battalions close in firm array,
There light platoons at distance file away;
Here lo! advanc'd alone his country's boast,
A single hero in himself an host!
Erst art in gardens trim disdain'd to see
The simple beauties of a lonely tree:
But Nature owns them, and they win applause:
For various trees are sway'd by various laws,
And tho' caprice or chance may bid them grow,
Ev'n from thei. wild confusion grace may flow.
Then mark with care their distance, form and hue,
Whose dignity or grace may charm the view.
And lest the shapeless trunk may hurt the eye,
Hide in deep shades its foul deformity.
But O respect the patriarch oak, whose brow
Sublime o'erlooks the stripling tribe below!
And where his grandeur tow'rs the shades between,
There open wide around the sylvan scene;
High o'er the filial circle let him reign,
And spread new glories o'er the smiling plain;
With more variety, and happier taste
May each fair view with clust'ring clumps be grac'd;
Crowd the deep mass by heaping shades on shades,
Or lightly let them wave their tufted heads.
With what delight, the distant eyes survey,
With quiv'ring leaves the verdant brothers play!
They bid variety each scene attire,
The landscapes now approach, and now retire;
They separate, they join, and o'er the meads
Expand or fold the curtain of the shades.

Your groups are form'd; come then, proceed and know,
What elegance your woods to art might owe.
Hail holy haunts! no more your vaults among
The wild-ey'd bard resounds his hideous song;
Now 'mid your caves a milder spirit dwells,
And inspiration breaths from all your cells;
Majestic groves! you now exalt his strain,
Whose hands shall ne'er your sacred gloom profane,
From you with reverence he'll learn to trace
The strong expression that your shades may grace.
Unnumber'd aspects may the forest own;
Here the thick trunks the gloomy bow'rs imbrown.
There glances thro' the shade a smiling ray,
And doubtful darkness strives with glimm'ring day.
A show'r of silv'ry light there strews the ground,
While the leaves fling a trembling shade around.
Now waving trees with sportive summits meet,
Now from each other coyly they retreat.
Thus shall the forest lose its frown severe,
But ah! its solemn sacred gloom revere!
Let no weak parts the mighty whole destroy,
Nor the tir'd eyes with idle objects cloy.
Let it be one; a plain majestic scene;
And Nature grand and wild at once be seen!
Let time-worn trunks there frown; their thund'ring roar,
Thro' the rent rocks let headlong torrents pour;
Of time, the storms, and floods each scar retain;
Respect those rocks whose horrors threat the plain;
And o'er the whole in all his savage pow'r,
Still let the bold majestic Genius low'r!
Such is the simple grandeur Nature loves,
And ever true to Nature, Taste approves.
How soft, how sweet a scene the grove displays,
As 'neath its shade the pathway winds and plays,

Attendant on the gurgling rill, whose side
Luxuriant in all its flow'ry pride,
Might well invite the * moralist of yore,
To many a strain of gay voluptuous lore.
'Tis not enough that grove or wood contain,
Within the centre of their deep domain,
Their rich or savage elegance, but round
Their skirts should fair embellishments be found.
Weak symmetry should ne'er their bounds confine,
Nor verdant ramparts hide the bold design.
But let their num'rous families be seen,
And the keen eye pierce deep the inmost scene.
Here strong in youth let some their branches rear;
While others bend decrepit, knotty, bare;
These creep, and those o'er all the forest reign,
And of the sap their tributaries drain.
A various scene! where manners, life and age,
Depictur'd strong, the thinking mind engage.
Why 'mid those scenes should mounds of green appear,
That still unchanging, vacant features wear,
And with dull sameness tire the aching sight?
O may variety, the sole delight
Of ev'ry human eye, break each rude tool,
That cramps free Nature with a servile rule!
Deep bosom'd swells, or jutting shades between,
Along the woody skirts should intervene.
Cold symmetry th' indignant eyes disdain,
There to the farthest bounds they glance amain;
But love to view, with ever-new surprise,
The charms that from those varied skirts arise;
Now lost amid the deep'ning maze they stray,
Then out again pursue the winding way,
And on the pictures, which this chain compose,
From space to space enraptur'd they repose.
More noble looks the wood, and as we range,
At every step the varying prospects change.
Trace then your plan, and mark with judgment chaste
Each tree you sacrifice to rigid taste.
Nor yet too soon enforce the ruthless law,
With grief condemn, and execute with awe.
Ah! think how slowly works the hand of time!
How gradual they rear'd their boughs sublime!
Nor wealth revives the violated shade,
Nor pow'r avails to cool thy sultry head.
Yet oft with wanton waste, th' ungrateful heir,
Deaf to remorse, without a passing care,
Looks on their faded forms, as low they lie
Upon th' indignant earth, and with'ring die.
Swift from his groves, Love speeds his headlong way,
And musing Melancholy dares not stay.

* Epicurus.

Oh! by those shades, beneath whose ev'ning bow'rs
The village dancers tripp'd the frolic hours;
By those deep tufts, that shroud your fathers' tombs,
Spare, ye profane, their venerable glooms!
To violate their sacred age, beware,
Which e'en the awestruck hand of time doth spare.
Too soon, alas! to fate their strength must yield,
Too soon shall younger trees usurp the field!
The axe will fall; on earth's cold bosom laid,
Defil'd with dust, their tresses fair shall fade.
Shades of Versailles, your fatal hour is come!
And must your glories meet their dreadful doom?
Ah! nought avails, that in the proud design,
Nature and Louis with Le Notre combine.
No more your tow'ring heads the storms shall dare,
Root-struck by Death, ye waver in the air,
To the curs'd ax your lofty summits bow,
And with loud thunders shake the plains below,
Your falling trunks block up each alley wide,
O'er which your branches wove their vaulted pride,
Fell'd are those shades, which erst were wont to throw,
Their cooling arch, o'er Louis' laurell'd brow.
Those shades, where softer conquests fir'd, his breast,
And ev'ry art embellish'd ev'ry feast.
Love, where's the bow'r, where Montespan once lay,
While all her pride in sighs dissolv'd away?
Oh! where's the shade, that veil'd the blushing charms
La Valiere yielded to her lover's arms;
While yet in doubt he clasp'd the melting maid,
Nor yet she felt the conquest she had made?
'Tis gone; 'tis fall'n; and from each rustling brake
Startle the birds, and the lov'd haunts forsake;
No more the feather'd nation cheerly sings
Its morning carols to the ears of kings.
The sculptur'd Gods, which peopled every glade,
With tangling wreaths once proud their limbs to shade,
Their shames to every eye reveal'd, now mourn,
By barbarous force their robes of verdure torn.
Ev'n Venus' cheeks a deep suffusion warms,
As each rude eye devours her naked charms.
Ye saplins rise, and crowd the empty space,
Ye dying trees forgive your dire disgrace!
The fate of short-liv'd, hapless man recal,
For you have seen the brave, the learned fall;
Corneille, Turene, now sleep in dust; on you
A hundred springs have shed their balmy dew;
But man's best days, alas! are soonest fled,
And those once gone, to ev'ry joy he's dead!
Bless'd is the man whose trees for years have stood:
More bless'd whose happier hands create a wood.
He cries with Cyrus, as their shades disclose,
" 'Twas I, who planted all those stately rows."

(*To be continued.*)

AGRICULTURE.

AN ADDRESS

DELIVERED BEFORE THE MASSACHUSETTS AGRICULTURAL SOCIETY AT THE BRIGHTON CATTLE SHOW, OCT. 9, 1822, BY THE HON. TIMOTHY PICKERING.

Gentlemen of the Massachusetts Society for the Promotion of Agriculture,

It appears to be expected, that at each of your anniversary meetings, a discourse on agriculture should be delivered. The Trustees of the Society have requested me to address you at this time. But though willing to be laid under contribution to the great object of your institution, it has occasioned a degree of solicitude to present something meriting your attention. From the multitude of books written on the subject of agriculture—embracing in that word whatever should employ the thoughts and the labors of the skilful husbandman—the field would appear almost boundless: yet to select topics particularly interesting to the farmers of Massachusetts, and here to discuss them so as to communicate useful and acceptable information, was not unattended with difficulty. My address must necessarily be miscellaneous.

Philosophers and practical husbandmen have for ages employed their thoughts and their pens on the various operations in agriculture; yet diversities of opinion still exist; and the reasons of many of those operations have been little more than conjectural. What constitutes the food of plants, has long been a subject of diligent inquiry. It was natural to suppose that if this food could be discovered, it could more easly be provided, or at least be more efficaciously administered. The palpable differences which distinguish the immense variety of plants, in their forms, textures, colors, and tastes, naturally suggested the idea, that each variety required its specific nourishment. Yet it being a matter of common observation, that the same soil would nourish and bring to maturity multitudes of different plants, of very opposite qualities—some yielding wholesome food, and others a deadly poison—at the same time all growing together, and robbing one another; a nobler and more simple idea presented itself—that the food of all plants was the same; but that each species was endued with the power of converting that food to its own peculiar substance: as among animals, the same grain produced all the varieties of flesh which go to sustain the life of man. In the vegetable kingdom, this supposed power

of conversion seemed strikingly apparent in the effects of grafting of fruits. The juices imbibed by the roots from the earth, and immediately changed to the proper sap of the native stock, ascend and spread through all the limbs; and if each of these be grafted with a different fruit, the varieties will be as numerous as the branches.

By the modern discoveries in chemistry, these mysterious effects seem to be accounted for. For it appears that all kinds of plants are composed of a small number of elements, whose different arrangements and combinations produce all the varieties in question. Seldom more than seven or eight of those elements belong to plants, and three constitute the greatest part of their organized matter. But each of these is a compound, consisting of the same materials, only in different proportions. The three principal ingredients in the food of plants, and which by them elaborated constitute the food of man and other animals, are named by chemists, carbon, oxygene, and hydrogene; in other words, charcoal, vital air and inflammable air; and these exist in the air we breathe, as well as in manures consisting of vegetable and animal matters.

It may seem incredible that the thin air, an invisible matter, should be changed, in the process of vegetation, into solid substances, as wood and stone: but nothing has been more clearly ascertained, than that in 100 parts of pure limestone, 45 parts are fixed air or carbonic acid; which in the act of burning the stone into lime, is expelled: for if at that time the stone be weighed, it will be found to have lost so much of its original weight. It is also well known that this same lime, which slaked with water, or exposed to the air, falls down into a powder, will immediately afterwards begin to imbibe fixed air from the atmosphere, and eventually, though slowly, recover its original weight. It is this same carbonic acid, or fixed air, which, at the bottom of wells, every year proves fatal to a number of lives. For this air, when separate, being heavier than the air of the atmosphere, sinks and remains at the bottom of wells, and is a deadly poison. It is the oxygene in the atmosphere, called also vital air, because essential to animal life, which, mingled with the fixed air, renders the latter harmless.

I have introduced these few remarks on the food of plants, to present an idea—a very faint one indeed—of that very interesting subject; which, as already observed, has so long employed the thoughts of philosophers and agricultural writers; but the satisfactory discovery of which seems to have been reserved for the present age. This view serves to account for the vast variety of plants which will grow on the same spot of earth; the ingredients of their food being substantially the same, but varied in the proportions peculiar to each; and which each has the faculty of appropriating to its own use; rejecting the rest, or casting it off as excrementitious.

But although the same article of food will afford nourishment to a variety of plants, yet these are so formed as to require a variety of soils, adapted to their several constitutions; some preferring a stiff, others a loose or light soil—some a moist and others a dry one.—Few, however, will refuse a well compounded loam. Soils (like plants) however diversified in appearance, consist of different proportions of the same elements. Four earths generally abound in soils; and these, by chemists, are called aluminous, siliceous, calcareous, and magnesian; and of these the three first are the principal; and, in familiar language, well known to every farmer, as clay, sand, and lime. Magnesia is often found in limestones; and the combination is said to give the strongest lime for the farmer's use: so as in smaller quantities to serve his purpose, as well as mild lime applied in much larger quantities.

The first object which claims the farmer's attention, is the nature or constitution of the soil. The next embraces the means of enriching it and preserving its fertility. That intimate mixture of clay and sand which is called loam, is the most desirable soil, as being already prepared for every operation in agriculture. A stiff clay demands opening by the addition of sand and other materials; and a sandy soil requires the addition of clay.—But calcareous earth is considered as essential to give to soils the capacity of attaining the highest degree of fertility. Few soils, indeed, are wholly destitute of calcareous matter, though it may be invisible to the eye: but very few possess so large a portion of it as would be salutary. There can be little danger, therefore, of applying it to excess in Massachusetts, where so little in any form has been found. Limestone is the great source of calcareous matter. But this is of various qualities. Very little of it is purely calcareous. Some limestones in Great-Britain have been found to contain eleven parts in twelve of sand. Of such lime, if 60 bushels were spread over an acre of ground, 5 bushels only of calcareous matter would be applied. To know then the constitution of the lime he uses, is important to the farmer; and not less so to the mason in preparing his mortar, which will require the addition of more or less of sand, according to the composition of the lime. All marles contain calcareous matter, and are of greater or less value, according to the proportion which this bears to the clay, sand, or other substances mingled with it. All shell fish will supply this material. In some parts of the United States, remote from limestone, oyster shells are burnt to obtain lime for building; and in all seaport towns, where many oysters are used for food, their shells will be found in quantities deserving the neighbouring farmer's attention; and if raised in piles, mingled with wood, may be burnt to lime.

Of the vast improvements of the lands in Scotland, within the lass forty or fifty years, lime has been the basis; and the use of it the first step towards rendering the application of manures, strictly so called, highly productive. There they will lay from fifty to two hundred or more bushels on an acre. In Pennsylvania, where lime has been long and extensively used, twenty to fifty bushels to the acre has been found sufficient, and safer than any larger quantity, at least in the first application. A remarkable instance of the beneficial use of lime, though only at the rate of about twenty bushels to the acre, well merits a recital. The experiment was made on a field of ten acres, for which the farmer had provided two hundred bushels: but it being his first essay in using lime, it so happened that the whole quantity was disposed of when he had gone over nine acres. Indian corn was planted; and the crop was very great. The next year, the field was fallowed, and at seed time sown, a part with wheat and a part with rye; and good crops were produced. "In the Spring (says the farmer) I sowed it with clover and timothy (Herdsgrass) and put two bushels of plaister on an acre, and had as great a crop of clover as could grow: it lay three weeks before the time of mowing." He adds—"The lime and plaister did all this; for no land could be poorer before. Where I laid no lime, I got no clover, although I put on the plaister."* The kind of soil in which lime operated so powerfully, is not mentioned: but probably it was claycy; a very common soil in the country where this land lay. Another like instance occured in the Delaware State, on a clay farm, on which plaister produced no effect until the land was limed.† While lime operates very beneficially on strong clays, it is said to be still more useful on lighter soils. To ascertain its effects on any lands, will require but little time and a small expense. A single cask of lime will be sufficient for a number of comparative experiments. If a few adjoining rods of land be set apart for the purpose, and the lime, by slacking, brought to a fine powder, it may be evenly spread on the several small strips, in different proportions, at the rate of twenty and any greater number of bushels to the acre. Then, by raking or harrowing, mix the lime with the surface soil, and plant each strip equally aud uniformly with Indian corn. One equal strip, tilled and planted exactly as the others, but left unlimed, will enable the experimenter to see what advantage may arise from liming. In the next year the effects of lime in its respective proportions, may be further tested, by sowing the same strips with equal quantities of one sort of grain and of grass seeds.

In like manner, small experiments may be made to try the effects of clay on light sandy or gravelly loams, and of sand on stiff clays. The clay should be carried on and spread, and lie on the surface during the winter, to break and moulder by the alternate frosts

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* Memoirs of the Philadelphia Society of Agriculture, Vol. I p. 193. † Ibid, vol. ii, p. 187.

and thaws, that it may be more effectually mixed with the soil.

As to the manner of applying lime, I am satisfied the best is that recommended and practised where lime has been most extensively used: that is, to slake it with water, and as soon as it falls to a fine powder and is cool, to spread it evenly over the land, and with the harrow mix it with the soil; its greatest utility depending on its intimate incorporation. In liming extensively, the lime is often, perhaps most commonly, carried on and dropped in small heaps, to be slaked by the moisture in the air: but it should be carefully attended to, that it may be spread as soon as it is slaked; or there will otherwise be danger of its setting in lumps, which may never again be duly pulverized.

If the application of lime be, as is represented, so important to the great and permanent fertility of the soil (and of this I entertain no doubt,) while the knowledge of the fact is all that is essential for the practical farmer to know; something more is desirable to satisfy inquisitive minds; and if the reason for using lime, or its mode of operating, could be shown, it would give confidence to the husbandman, while it gratified the philosophical inquirer.

A gentleman who is reputed to be one of the greatest chemists of the age (Sir Humphrey Davy) informs us that "when lime, whether freshly burnt or slaked, is mixed with any moist fibrous matter, there is a strong action between the lime and the vegetable matter, and they form a kind of compost together, of which a part is soluble in water:"—that "by this kind of operation, lime renders matter which was before comparatively inert, nutritive; and as charcoal and oxygene (vital air) abound in all vegetable matters, it (the quick lime) becomes at the same time converted into carbonate of lime;" that is, it is restored, by again combining with carbonic acid or fixed air, to the state in which it existed before it was burnt, except its being reduced to powder. Again he says—"Mild lime, powdered limestone, marles or chalks (for chalk is a limestone) have no action of this kind upon vegetable matter; by their action they prevent the too rapid decomposition of substances already dissolved; but they have no tendency to form soluble matters." He then remarks, that "chalk, marle, or carbonate of lime, will only improve the *texture* of the soil: or its relation to absorption; acting merely as one of its earthly ingredients.—Quick lime when it becomes mild, operates in the same manner as chalk; but in the act of becoming mild, it prepares soluble out of insoluble matter." Again he says—"All soils are improved by mild lime, and sands more than clays."

While quick lime, according to this celebrated chemist, is so usefully applied to land abounding in fibrous matter, to effect its speedy dissolution, he says its application should be avoided, where a soil contains much soluble vegetable manure; as it either tends to decompose the soluble matters by uniting to their carbon and oxygene, so as to become mild lime, or it combines with the soluble matters, and forms compounds having less attraction for water than the pure vegetable substance.

But an ingenious writer, under the signature of Agricola, in Nova-Scotia, says, that notwithstanding all these precautionary fears, the offspring of chemical creation, the British farmer is mostly in the habit of applying quick lime to all sorts of soils. And he assigns an adequate reason, that caustic lime cannot remain any length of time in the ground, without passing into a carbonate and becoming mild. This writer offers different reasons for the beneficial operation of lime: that it is capable of absorbing not only that quantity of carbonic acid which it possessed in its natural state (being 45 parts in 100) but an additional quantity; and can form what chemists call an hypercarbonate. This, he says, is highly soluble in water: which accounts for the admission of lime into the structure of plants; and that this excess of carbonic acid adheres very loosely to its base (the mild lime) and is liberated without any extraordinary degree of heat. The carbonic acid, a most important article of vegetable food, is copiosuly evolved in the putrefactive process of manures; the calcareous earth fixes and prevents its escape —forms with it a hypercarbonate, and readily imparts it, in union with water, towards the nourishment of the crops. It is supposed to do more; it unites with the carbonic acid floating in the air; and when there is a scarcity of aliment in the soil, it seizes and secures this food in the atmosphere, and afterwards disperses it, according to the calls and necessities of vegetation. Hence the necessity of keeping, lime on the surface. It is then ready to intercept, and combine, with the carbonic acid which is generated by the fermentation of the putrescent matter lying at lower depths, and to attract the same gas (the carbonic acid) from the surrounding air.

I confess myself much better satisfied with the observations of Agricola, in accounting for the operation of lime, than with the solution offered by Sir Humphrey Davy. If the statement of the former be correct, we can see a reason for the long continuance of the beneficial effects of lime on land: for although it is not itself food for plants, it is constantly employed in collecting and imparting to them that food, from the sources which have been mentioned. Does not the reasoning of Agricola also indicate the cause why lime benefits sands more than clays? The latter are opened and rendered lighter by its application: and to destroy their too great tenacity, seems to be a main advantage gained by liming clay soils; whereas sandy soils are already sufficiently porous.

An old English practice of burning clay for a manure, has lately been revived in England, and with some appearance of novelty. The facts stated in regard to its operation, preclude all doubt of its efficacy. On stiff clays, it has in the practice of some farmers, superseded the use of lime: because, although much greater quantities of it are required, yet being on the spot, in the very field where it is wanted, it is much cheaper than lime, for which the farmers are obliged to send upwards of twenty miles.—It is said that clay thus burnt,—in which the process is so managed as to reduce the clay to the condition of ashes,—will not again, when wetted with rains, recover its original texture of a close compact substance too tenacious of water, and when dry, too hard for the roots of plants freely to penetrate. I have called the burning of clay for manure an old English practice: for I find an account of it in the second of Dr. Elliot's Essays on Field Husbandry, written and printed in Connecticut upwards of seventy years ago. The Doctor gives a recipe, copied from an English book, for the process of burning it; which is with a *smothered fire*, a point of indispensable neccessity, according to the present practice in England.

Many ways of improving lands, both in the manner of cultivating them, and in the kinds of useful plants to be introduced, have been often recommended; and certainly a spirit of improvment has been extensively excited:—yet much remains to be done, to raise our crops to an equality to those in some European countries, whose lands and climates are no better than our own. But have we the means of accomplishing it? I answer, generally, that we have. Our animals for labor are equally efficient. Our instruments of husbandry are as good, or capable of being easily made so. Our husbandmen are as intelligent, and unquestionably less prejudiced and less averse to adopt improved modes in farming. In England, a bigotted perseverance in ancient practices, however absurd, has in times past been astonishing. Her own writers inform us, for instance, that in one county all their common ploughing has long been performed with one pair of horses driven by the ploughman; while in an adjoining district four or five horses, in a single line, have been put to the plough, with the addition of a driver, and yet plouging no more land, nor with a deeper furrow, than was elsewhere effected with one pair of horses.

But although I suppose no prejudices equally strong exist among us, still we are, I think, too prone to adhere to old usages, where no good reasons can be given for them. New practices in husbandry are often—perhaps chiefly —attempted by persons not bred to that occupation, and these, for want of practical skill, may often fail in the execution; and when successful, the success is ascribed to a liberal expenditure of money, beyond the ability of the mere farmer. But what risk will attend experiments made by farmers themselves, to test the value of these novelties?—Each one for himself can try them on as small pieces of ground as shall suit his convenience, and at a very small expense of time and money. The introduction of improvments would be facilitated, if the money expended, and especially the quantity of labor bestowed upon

them, were always accurately stated, and their authenticity vouched by the names of the improvers. And if the experimenters, in these cases, who hire all the labor, and this often performed in their absence, are merely *not losers*,—practical farmers, always present, and working too with their own hands, would assuredly render such new practices *profitable*.

But I apprehend the knowledge of modern improvements in husbandry is far less extended than may commonly be supposed. That celebrated Travelling Agriculturist, the late Arthur Young, a man of science and literature as well as a practical farmer,—after visiting different districts in England, for the purpose of observing, and for the information of his countrymen describing their various modes of husbandry, commenced, about the close of the American War, his Annals of Agriculture. He afterwards travelled over France and parts of Spain and Italy with the same views.—Thus fraught with agricultural knowledge, he continued his labors in that work; comprehending, in addition to his own observations, useful communications from practical farmers, bearing their signatures, for it was a general rule with him not to admit any unless thus vouched; yet, if my recollection be correct, that practical work was so little attended to by English farmers, that he once stated its sales as not exceeding 500 copies. Since then, indeed, improvements have more readily been adopted, and agriculture has advanced with an accelerated pace, and in Scotland with great rapidity. *Reading*, to obtain agricultural information, has been extended, and become fashionable; and book-farming knowledge is no longer despised. This knowledge is now of greatly increased value, because experiments, with a view to improvements, are not, as formely, made at random, but on principles founded in the nature of things, and which rest on modern discoveries.

As we have no farmers who cannot read—in order to give to all opportunities of reading, I take leave to suggest for consideration, the expediency of forming, in each township in the State, a farming society, of which the members should meet monthly, to converse on farming affairs—to make mutual communications of their practices in husbandry—to commit to writing every practice not in common use, which may be beneficially extended—and to read and examine modern publications on their vocation; particularly those of the State Society, which the Trustees would gratuitously furnish. To these, such township-soceties would find it sgreeable and useful to add the best periodical publications which issue from the presses of our own country, either through the agency of Agricultural Societies, or of well informed individuals.—With these and a few other books on the subject, each township-society would become possessed, at a very small expense, of a pleasing and instructive agricultural library.

After considering the constitution of the soil he has to cultivate, the next object of the farmer will embrace the means of enriching it, and of preserving its fertility. To enrich it, manure will present itself as of the first importance; and of manures, the dung of his live stock will obviously occur as the most essential ingredient. If the manure from the droppings of his stock could easily be doubled, how great would be the farmer's acquisition? That this is practicable I cannot permit myself to doubt. I am rather inclined to think it capable of a manifold increase. At another public meeting of farmers, I had occasion to suggest some means of preserving and greatly increasing this important article; particularly during that portion of the year when cattle are at pasture, but penned at night in the barn yard. Nothing is more common than to see these yards, after being cleared of manure for the Spring crops, left naked until autumn, without litter or mud, or earth of any kind, to absorb the urine of the cattle and to mingle with their dung; but all is left open to our burning summer suns, by which the greater part, three fourths, perhaps seven eighths, of the essence of both are exhaled and given to the winds. To prevent this serious loss, I suggested the expediency of giving to the barn yard, as soon as it was cleared out, a covering of any kind of litter, and a coat of earth, mud from low grounds, loam where attainable, or any kind of earth to which a farmer can have easy access; and that as often as once in two weeks, a new coat of earth should be introduced. Weeds from road sides and waste places would make valuable additions to the summer manure.—By such means manure may be increased in a four, perhaps an eight-fold degree.

But if in addition to this accumulated summer manure, the farmer, without any of the dung or litter of his cattle, could double the quantity usually made during the winter, would he not consider himself enriched?—That this is practicable will appear from a statement I shall now recite; it being the result of careful experiments made in Scotland during a period of ten years. The fact is stated in one of a series of papers written with great ability by Mr. John Young, under the signature of Agricola, (already referred to) and published at Halifax. The urine of cattle produced this mighty effect. I cannot so well occupy your time as by giving the statement in his own words, as abridged by him from the Farmers' Magazine, published in Scotland.

"I should be afraid (says Mr. Young) to hazard my character with the public, by stating in round and unqaulified language, the value of this rich juice which is literally wasted and thrown away; and therefore I shall proceed with caution, and give a detail of facts, conclusive in their bearings, and substantiated by the best authority. They are contained in a letter* from Charles Alexander, near Peebles, Scotland; and are addressed to Sir John Sinclair 1812, for publication. This

* "Farmers' Magazine, vol. xiii, p. 78."

intelligent farmer had long been impressed with the great importance of the urine of cattle as a manure; and he sets about to discover, by a long and well conducted series of experiments the best mehod of collecting and applying it. He began by digging a pit contiguous to the feeding stall, but distinct altogether from that which was appropriated for the reception of the dung. The dimensions of this pit, accordig to his own account, were thirty-six feet square, and four feet deep, surrounded on all sides by a wall; and the solid contents were 192 yards. Having selected the nearest spot where he could find loamy earth, and this he always took from the surface of some field under cultivation, he proceeded to fill it; and found that with three men and two horses, he could easily accomplish 28 cubic yards per day; and the whole expense of transporting the earth did not exceed £4. 16. 0.* When the work was complete, he levelled the surface of the heap, in a line with the mouth of the sewer which conducted the urine from the interior of the building, on purpose that it might be distributed with regularity, and might saturate the whole from top to bottom. The quantity conveyed to it, he estimates at about 800 gallons; but as this calculation was founded partly on conjecture, for he measured not the liquor, it will be better and more instructive to furnish and proceed on *data* that are certain and incontrovertible. The urine was supplied by 14 cattle, weighing about 34 stone each,† and kept there for five months on fodder and turnips. The contents of the pit produced 283 loads, allowing two cubic yards to be taken out in three carts;‡ and he spread 40 of these on each acre; so that this urine in five months, and from fourteen cattle, produced compost sufficient to fertilize seven acres of land.§ He states further, that he tried this experiment for ten years and had indiscriminately used, in the same field, either the rotted cow dung, or the saturated earth; and in all the stages of the crop he had never been able to discover any perceptible difference. But what is still more wonderful, he found that his compost lasted as many years as his best putrescent manure; and he therefore boldly avers, that a load of each is of equivalent value."—"The dung pit, which contained all the excrementitious matter of the 14 cattle, as well as the litter employed in bedding them, and which was kept separate for the purpose of the experiments, furnished, during the same period, only 240 loads; and these, at the same rate, could manure only six acres."

On this statement one remark forces itself into notice. That for the want of such a reservoir for saving the urine of our cattle,

* $21 31. Seven days work for three men and two horses; each horse, I suppose, in a single cart, a common usage in Scotland.

† This would be the weight of a cow.

‡ This gives 18 cubic feet to each load.

§ Seven Scotch acres are nearly equal to nine English and American acres.

more than half of our winter made manure, and this is the farmer's chief dependance, is lost.

[TO BE CONTINUED.]

THE PLOUGH BOY.

ALBANY: TUESDAY, FEBRUARY 25, 1823.

Mr. Pickering's Address.—We are sure that our columns could not have been better filled than with the able Address of the Hon. TIMOTHY PICKERING, which occupies most of the pages of our present number. It is true that many of our readers will be furnished with this valuable paper from the Massachusetts Agricultural Repository, in which it originally appeared. But there are others, who, it seems, have for some time been waiting with solicitude for its appearance in our paper. We have repeatedly been requested to furnish it, and are now happy in complying with the wishes of our friends, who have made such applications.

We are somewhat at a loss how to express our opinion of this Address in such a manner as to convey our real sentiments; and at the same time avoid the appearance of that kind of encomium which often displeases men of merit. We shall, however, venture a few words, with a disposition to say no more than truth justifies, and justice demands.

Although the subjects of the Address are not only important, but many of them abstruse, forming what may be styled the metaphysics of chemistry and physiology; still there appears to be nothing in Mr. Pickering's observations, which is hard to be understood.—Volumes after volumes have been written on the food of plants; the elements, or chemical constituents of vegetables; the mode of operation, the manner of applying, and the benefits resulting from the application of lime; the different kinds of earth necessary to constitute fertile soils; the burning of clay for manure; the obstacles, which prejudice and a pertinacious adherence to old usages oppose to improvements in agriculture, and the best means of overcoming such obstacles; the best methods of accumulating and applying manure; methods to improve the different breeds of live stock, &c. &c. But we do not remember ever to have seen so many, and such important topics comprehended in even more than double the number of pages containing Mr. Pickering's remarks on those subjects. But, though the progress of the orator was necessarily rapid, from the great extent of the field, which he undertook to survey, he was able to shed new light on every object which came in his course. In short, we never read an agricultural essay, which, in our opinion exhibits so much *useful matter* in *so short a compass.* We think it should be a subject of congratulation with every friend to his country, that an eminent statesman and revolutionary patriot should be induced to exert his influence, employ his time, and devote his talents to promote the interests of agriculture, the most noble of the sciences, as well as the most useful of the arts.—EDITOR NEW-ENGLAND FARMER.

FOR THE PLOUGH BOY.

MR. SOUTHWICK,

SIR,

From early life, I have been more or less engaged in agricultural pursuits. In the course of which, I have taken pains to find out the best method of managing manures.—And by actual experience, I am fully convinced, that Orts, (that is hay or straw, wasted from the rack) horse litter, cow or other scattered manures, about the stable yards, lose much of their fertilizing qualities, by lying spread abroad and exposed to the sun and rain for any length of time. My method is to gather it on heaps with a shovel or broad hoe, and when a sufficient quantity is so gathered, to make a cart load or two, to cart it to the compost heap, and with it to make a layer, if clear horse litter, or of cow, about three, or not more than four inces thick, and on such layer to spread about two or three inches of the richest mould that I can obtain. Laying the compost heap in a square, or oblong, and on ground a little descending on all sides towards the heap, making the heap flat on the top so as to admit the rain; the heap of compost, however, not to be so placed as to be deluged in times of heavy rains. The heap of compost before the hard frost sets in will be so large as to shield nearly all from being hard froze. The frost I am fully satisfied materially injures the manure. Formerly I carted out my manure on my corn ground, &c. in the begining of winter, and in some instances, spread my horse litter thinly on my meadow ground, where it lay exposed to the frost all winter. By this method, I found that I derived very little advantage from the manure.—Seeing this, I left my compost heap undisturbed until the hard frost subsided, when I carted it out, and I found a very material difference in favour of the last mode. To test this, let a ley cask be set in frosty weather in winter, and the ashes and ley froze, such ley cannot by boiling, or any other process, be so strengthened, as to make soap. Wood ashes when spread on the ground, and exposed to the frost through the winter, have no more effect, as a manure, than so much dust taken from the street: And wood ashes often constitute a large portion of the compost heap. Clear cow manure, lying spread thin, and exposed to frost, lose more than half its fertilizing powers. Manure, when carted out in the spring of the year, should be spread at such time when ploughing can with convenience be performed, and not left, after spreading, exposed to the sun and air; such exposure is very injurious, unless immediately ploughed in.—And such spreading and ploughing in, I have practised, believing it far superior to puting the manure either under, or over the seed corn, or potatoes. The putting the manure in the hills and furrows, in a dry season, does more harm than good, this I have effectually tried.

A plain Farmer.

From the Troy Post, Feb. 11.

TROY FEMALE SEMINARY.

We have again with real pleasure witnessed the proficiency of the young ladies, pupils of Mrs. Willard, and think their parents could not have attended the recitations without feeling a just pride in their attainments.

Our conviction is strong, that the system must be a good one, which results in so great improvement in the most essential branches of education, while nothing ornamental, and peculiar to female accomplishment is omitted. The memory, on which at this early age so much depends, appears to be cultivated to a surprising degree; yet by no means without every reasonable indication of comprehension and understanding.

Prejudice may from inadvertency place this institution on a level with common boarding schools; for society has been too often deceived by pretensions, which it was not in the power of the instructors to fulfil. Taste and enthusiasm, without which nothing ever succeeds well, are as rare in this laborious and philanthropic employment, as the pre-eminent talents which likewise conduct this seminary. It is not sufficient that the principal has the manners and accomplisments of the lady, with the cultivation of the scholar—it was requisite to eminent success, that she should also possess that sound judgment and discrimination in character, which can discern and choose the best qualified assistants, and guide their united efforts to the best influence on the variety of temper and capacity, which must ever compose a society of youth. Nor is it unimportant that while the youthful facultics are expanding with acquirement, this interessing portion of life should be passed as *happily* as usefully.

While the agreeable impression this exhibition has made is yet recent and warm on every mind and in every heart, a few cursory remarks on the value of female education cannot be unacceptable, amidst a community that has honored itself in fostering the excellent and in several respects novel institution.

While our sons receive every aid in their application to study, which the liberality of the government can bestow, the minds of their sisters are not to be denied of less value. This would be pagan injustice. If the principle be as we think it is equally sound and admonitory that education should be framed and accomplished in reference to the destination of its subject, then female education assumes a consequence proportionate to the natural and proper influence of woman as a constituent part of society and to the peculiarly interesting relations she must bear in it.

The rapid accumulation of wealth in our country is bringing its attendant luxuries, and temptations to dissipation and corruption of manners. These dangers can be counteract-

ed only by good sense, just and judicious views of life, a deep sense of moral and religious obligation, founded on a thorough conviction of those sacred and momentous truths which announce the responsibility of moral and intellectual beings. From the cottage to the palace in Europe—as from the farm to the city in America, one solemn truth pervades the dwellings of men, like light—that wherever there exists most intelligence, *there* will be found most virtue. For ignorance is the parent of idleness and vice, to which vanity and frivolity are nearly related.

A pure and understanding heart, was the best gift of heaven to the most favored of the sons of men. Mind, in whatever walk of life it shines—is of all others the most valuable possession. It is the instrument of all acquisitions, and the seat of all feeling. Its power maintains an ascendancy over all external circumstances, even controling the influences of fortune. This is evinced in the progessive improvement of society—the increasing elevation of our colleges—the higher requisitions on scholars, and on professional men, who happily must now pass the ordeal of a jealous examination. But female education has generally remained stationary; or been feebly fostered and principally by private patronage. How perplexing the inquiry has too often been among parents solicitous of their duty:—Where can we safely bestow the precious years of the youth of our daughter? Into whose hands shall we commit the trust of deeply implanting in her mind the rudiments of knowledge, the love of virtue, the principles of moral rectitude—the evidences of natural and revealed religion—and of forming her taste for sound, useful and ornamental acquirements, that she may be good and happy? That she may grace her home with elegance and discretion, and be better able than ourselves to guide the tender minds of those in turn committed to her charge, till the institutions of public education, receive them? Nor even then will the benign influence of maternal love cease to operate, in due proportion to its wisdom.

What higher tribute of respect and confidence—what better comment on the value of this seminary can be expressed, than to name the fact that already young ladies are sent to it, not only from every part of this state, but even from Georgia, Louisiana and Canada?—In point of economy too, much might be said. For here every science and accomplishment is excellently taught, and all at less expense than music alone, less perfectly taught, would cost in the city of New York. It is also a domestic establishment, that differs in nothing from a family, but in numbers, regularity and order; and for the greater satisfaction of distant parents, a committee of ladies inspect and occasionally advise in the seminary. A New era in female education is thus commenced, and it may, and we think ought to receive the encouragement and patronage of every liberal and patriotic mind in authority or influence. It wants only those instruments of instruction, usually provided by the founders of institutions of this kind, to be complete. Can so reasonable a request be rationally denied by an enlightened and republican legislature?

Before the christian era, the world was degraded in the degradation of Women; but darkness and oppression fled before the light of truth, and she resumed her equal right to all its varied charms and blessings. In recovering her rank, she assumed those offices of beneficence which the principles of her religion prescribe. Those sciences, therefore, that teach her how to live, and how to be prepared to die, ethics and theology, became essential to her happiness and her eternal hopes. Those too which unfold the latent wisdom and beneficence of the creator, in the discoveries and affinities of chemistry—in the skilfully ordered laws of natural philosophy—in the sublime mechanism of the planetary system, all lead "through nature up to nature's God."—while geography, ancient and modern, present the field where history and biography display his providence in events—the instrumentality of virtue and capacity, in his designs, till we trace them down to our own times, and to the institutions of our own country. The exact sciences are both auxiliary and ornamental; they not only exercise and strengthen the faculty of attention, but enable a lady to understand and appreciate much, that interests and occupies her male friends. Nor are they difficult to acquire, when taught with kindness and judgment. But the science of mind is of pre-eminent consequence. Its analysis is equally gratifying and instructive. Woman is not indeed called to the desk, the forum, or the field; but she is destined to be the companion of those who are.

Knowledge can never be superabundant in any mind. If we require not its immediate use, wait but the next hour, and some vicissitude will call it into action. Uncertainty and change characterize this world. The daughters of opulence may be suddenly called to diffuse the stores of useful and ornamental knowledge, which their youthful industy may have accumulated. And with what self-gratulation will they repay those obligations, which gratitude and nature acknowledge.—Others less favoured by fortune, may contemplate this line of usefulness as an honourable profession; and such must in preference to all other candidates be sought, as peculiarly worthy and qualified for the trust of female education: An institution which not only prepares the most prosperous for lives of exemplary virtue, but is thus calculated to extend these advantages to less conspicuous walks of life, correcting the prevailing error of a merely superficial and showy education of females, and raising the standard of their mental character, cannot be too highly appreciated.

But our limits forbid enlargement on the subject, and we leave it with regret, expressing our belief, that in no other way can a few years of that unsettled portion of life between childhood and maturity in which female youth flutter around the blaze of fashion in our metropolis and other cities, be more advantageously or safely bestowed, than in here laying a substantial foundation of that fabric of character upon which their destiny and happiness essentially depend. The influence of female worth and cultivation of mind, on the attainments and characters of men is too obvious to be doubted. The acquirements of the one prompt and animate the studious industry of the other:—while taste and virtue ever attend in both the steps of knowledge and science.

It is with sincerity and disinterestedness, that we bear this testimony to the comprehensive and regular system of instruction which genius and assiduity have already advanced to a high degree of maturity.

PLOUGH BOY SUMMARY.

FOREIGN AND DOMESTIC.

In our summary of this day, we have to record—

The appointments of judges of the county courts, by the governor and senate, as follow: *Schenectady*—David Boyd, Henry Yates, jr. James V. S. Riley, Restcome Potter, and John Titus. *Sullivan*—Livingston Billings, Samuel Smith, William Gillespie, William A. Stokens, and Thomas Crary. *Chenango*—John Tracy, Isaac Sherwood, Nathan Tyler, and Levi Biglow. *Rensselaer*—David Buel, Jun. Jeffery W. Thomas, Gideon Cornell, Martin Van Alstyne, and Hiram P. Hunt.—*Steuben*—James Norton, Selah Barnard, David Hall, Thomas M. Bowen, and Eleazer Lindsley. *Tioga*—Latham A. Burrows, Jacob Wilsey, John M'Connel, and Elijah S. Hinman. *Otsego*—John C. Morris, Elisha Foot, John Woodbury, Abijah H. Beach, and Delos White. *Westchester*—Caleb Tompkins. Ezra Lockwood, Edward Kemeys, Henry White, and David Monson. *Delaware*—Ebenezer Foot, Robert Clark, Jabez Bostwick, Peter Pine, and Martin Keeler. *Queens*—James Lent, Joseph Pettit, James Hegeman, David Lambergon and John I Schenck. *Richmond*—Jacob Tyson, Daniel Crocherone, Joseph Seguine, James Guyon, Jun. and Richard Crocherone. *Oswego*—John Grant Jun. Chester Hayden, Peter D. Hugunin, Joseph Easton and Hastings Curtis. *Washington*—John L. Wendell, Leonard Gibbs, John Baker, Jonathan Sprague and Benjamin F. Skinner.

DIED, on Friday evening last, after a short, but very severe illness, Mr. GEORGE WEBSTER, bookseller, and one of the editors and proprietors of the Albany Gazette and Daily Advertiser, in the 61st year of his age. He has left a large family, to whom his death will be an irreparable loss; and a numerous circle of friends and acquaintances, by whom his memory will be cherished and respected.

MISCELLANEOUS.

FOR THE PLOUGH BOY.

SIR,

Should the within lines be worthy of a place in your paper, you are at liberty to publish them. Your's with respect,

A CITIZEN.

ALBANY, Feb. 15, 1823.

YOUTH AND MANHOOD CONTRASTED.

On downy pinions oft my fancy strays,
To the lov'd pastimes of my youthful days,
When my warm heart with magic pencil drew,
The glowing scenes in tints of richest hue.

My heart was buoyant and my mind at ease,
And every object lent a charm to please,
No gloomy thoughts my tranquil breast did share,
Intrusive sorrow ne'er was foster'd there.

Oft with delight I heard my playmates call,
To join the heartfelt pleasures of the ball,
Or when bright sol dispens'd a milder beam,
To sport the lawn or plunge the lucid stream.

Soon as reflection had the scene survey'd,
And in true colours had this life portray'd,
The tasteless picture to my eyes I held,
And all my youthful charms were then dispel'd.

Feign would I paint life's dull and dreary scene,
Rich with radiance of the morning beam,
Deck its mazy paths with fragrant flowers,
And sing their beauties with angelic powers.

From me alas! those joys have taken wings,
And fled to youth, whence all enjoyment springs,
And left a cheerless and insipid void,
And life's gay pleasures are at length destroy'd.

Alas! poor man, thy bosom canst not find,
The balm of comfort for thy troubl'd mind,
Life's fraught with ills, which to thy heart disclose,
The pointed thorn conceal'd beneath the rose.

Could I, like Young, this plaintive theme pursue,
And ope man's anxious aking heart to view,
I'd shew the tasteless fleeting hours of life,
And nought but ills and unremitting strife.

FOR THE PERCY ANECDOTES.

OF HUMANITY.

SIEGE OF CAJETA

The city of Cajeta having rebelled against Alphonsus, was invested by that monarch with a powerful army. Being sorely distressed for want of provisions, the citizens put forth all their old men, women, and children, and shut the gates upon them. The king's minisers advised his majesty not to permit them to pass, but to force them back into the city; by which means he would speedily become master of it. Alphonsus, however, had too humane a disposition to hearken to counsel, the policy of which rested on driving a helpless multitude into the jaws of famine. He suffered them to pass unmolested; and when afterwards reproached with the delay which this produced in the siege, he feelingly said, "I had rather be the preserver of one innocent person, than be the master of a hundred Cajetas."

Alphonsus was not without the reward which such noble clemency merited. The citizens were so affected by it, that repenting of their disloyalty, they soon afterwards yielded up the city to him of their own accord.

TRIUMPH OF METELLUS.

When Nertobrigia was invested by Q. Cœcilues Metellus, the Roman pro-concul, Rhetogenes, a chief lord of the place, came out and surrendered himself to the Romans. The inhabitants, enraged at his desertion' placed his wife and children whom he had left behind, in the breach which the legionaries were to mount. The Roman general hearing of this, and finding that he could not attack the city without sacrificing them, abandoned a certain conquest, and raised the siege. No sooner was this act of humanity known through Tarraconian Spain, than the inhabitants of the revolted cities strove who should first submit to him; and thus was a whole country recovered by one humane act.

S. SOUTHWICK,

Attorney and Counsellor at Law, and Solicitor and Counsellor in Chancery, has opened his Office at No. 18, South-Pearl Street.

Albany, Jan. 1823.

CLOVER MILL.

The subscriber has now the satisfaction of announcing to the public, that the test of his new improved Clover Seed Mill, has been satisfactory to all those who have tried it; he has got about fifty mills in operation the season past; of which a number have cleaned two bushels per hour, for a number of hours together; but one bushel per hour being fast enough, and with a good water power, his mills will perform that. The cheapness and durability of his mills, he thinks, will be an inducement for all those who want to make applications. All those who wish to have mills erected next season, will do well to make an early application; so that he can make his calculations to meet them; for he has had to disappoint a number of his applicants. He calculates to have agents in all parts of the State; (he warrants his mills in all cases, where they are built right.) His mill can be applied in common grist mills for corn crackers, for one third the expense of the present ones. He is also putting up horse power mills for cleaning clover seed, for individual farmers, at a small expense, which will perform well. JOHN BOLTON.

Warren, Herkimer co. Feb. 14, 1823.

Moreau, Saratoga co. July 10, 1822.

TO all whom it may concern, I the subscriber saw John Bolton clean in the clover mill that he has erected for Gen. Fort, three pecks of clean seed in 42 minutes.

NICHOLAS W. ANGLE.

Moreau, Nov. 11, 1822

I, the subscriber, have put one of John Bolton's newly invented clover seed mills in operation, and have seen it clean three pecks of clean seed in one hour from the poorest quality of chaff, and am satisfied from the average quality of chaff, it will clean one bushel per hour. JACOB A. FORT.

We the subscribers have put one of John Bolton's new patent clover seed mills into operation this summer past, and we have cleaned 450 bushels of clover seed. Our mill has cleaned two bushels per hour, and we do believe it to be one of the greatest labour saving machines now in use.

CHARLES FOX,
ALVIN WEATHERBEE.

Warren, Dec. 20, 1822.

We the subscribers have tended for John Bolton his newly invented clover seed mill the last fall, and have cleaned 500 bushels of clean clover seed; we have cleaned 115 bushels in seven days and nights; we have cleaned 58 bushels in 50 hours, it being the product of 28 acres; and we have cleaned 18 bushels in 14 hours, and we have cleaned as high as 2 bushels per hour for a number of hours.

JOEL L. RANSOM.
OLIVER WARNER.

Warren, Herkimer co. Dec, 20, 1822.

Poughkeepsie, January 18, 1823.

We the subscribers, being present at the mill of Mr. E. Upton, and saw John Bolton clean five bushels and eight quarts of clean clover seed, in four hours and thirty-one minutes.

G. B. EVERTSON.
THOMAS SWEET.
EDWARD UPTON.
RICHARD TOWNSEND.
Z. CHURCHILL.

Winfield, Herkimer co. Feb. 12, 1823.

This may certify, that I the subscriber, have put one of John Bolton's newly invented clover seed mills in operation the fall past, and have cleaned over five hundred bushels of clean seed, and with a light water power; and do believe it to be one of the greatest labour saving machines now in use.

THOMAS KELSEY.

☞ COMMUNICATIONS and SUBSCRIPTIONS for this paper, received by the EDITOR at No. 18, South-Pearl-Street.—Each volume comprises twelve months, or fifty-two numbers—the numbers are issued weekly on Tuesdays, and the volume commences the first Tuesday in June.

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